

WHAT IS CLAIMED IS:

1. A display device comprising:

display means for forming information; and

optical means for guiding the light from said

5 display means to the eye, said optical means including  
a curved face for totally reflecting the light.

2. A display device according to claim 1, wherein

said optical means includes, in the order in the

10 proceeding direction of light, an entrance face for  
introducing the light from said display means, said  
curved face and a reflecting face for reflecting the  
light toward the eye, wherein the light reflected by  
said reflecting face is transmitted by said curved face  
15 and reaches the eye.

3. A display device according to claim 1, wherein  
said curved face has variable optical power depending  
on the azimuthal angle.

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4. A display device according to claim 1,  
satisfying a condition  $|\alpha| \leq 20^\circ$  wherein  $\alpha$  is the angle  
between the tangential line to said curved face at the  
vertex thereof and a line perpendicular to the optical  
25 axis of the eye.

5. A display device according to claim 1, further

comprising:

illumination means for illuminating the eye; and  
light-receiving means for receiving the light  
reflected from the eye, for detecting the visual line  
5 thereof.

6. A display device according to claim 5, further  
comprising:

10 control means for controlling the display state of  
said display means, according to the light receiving  
state of said photosensor means.

7. A display device according to claim 2, wherein  
said reflecting face is a half-transmitting face.

15 8. A display device according to claim 2, wherein  
said reflecting face has variable optical power  
depending on the azimuthal angle.

20 9. A display device comprising:

information forming means for forming an  
information;  
optical means for guiding a light of said  
information forming means to an eye, in which said  
25 optical means have a reflecting curved face decentered  
having a positive optical power;  
illuminating means for illuminating said eye;

converging means for converging a light of said illuminating means reflected from said eye; and detecting means for receiving a light from said converging means to detect a state of said eye;

5       wherein where an imaging magnification of said converging means is  $\beta$ , a following condition is satisfied,

$$0.02 < | \beta | < 0.18.$$

10      10. A display device according to claim 9, wherein said reflecting curved face has variable optical power depending on the azimuthal angle.